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LC1

LUMMI INDIAN BUSINESS COUNCIL
2616 KWINA ROAD • BELLINGHAM, WASHINGTON 98226 • (360) 384-1489
DEPARTMENT_____ EXT. _____

November 28, 2002

Barbara MacGregor
SEPA Center
Washington State Department of Natural Resources (DNR)
1111 Washington Street SE
MS: 47015, Olympia WA 98504-7015

Dear Barbara MacGregor:

Lummi Nation would like to extend their thanks for the opportunity to provide comments and recommendations on the Preliminary Draft Environmental Impact Statement (PDEIS) regarding the DNR Lake Whatcom Watershed Land Holdings.

Beyond the memory of man, Lummi Nation utilized this area for its resources for our physical, spiritual and historical values taught by our ancestors, and we still respect those wisdom's and teachings today. All resources are respected by our people, because those resources are "Sche'lang'en" means, in the Lummi Language "Way of Life".

It shall be the policy of the Lummi Nation to preserve and manage cultural resources in ways that contribute to meeting the social, environmental, spiritual, economic and other needs of present and future generations.

Lummi Nation will provide leadership and technical assistance in the preservation, protection and conservation of cultural resources by developing a culturally appropriate cultural resources management plan. Lummi Nation will sponsor educational programs for the general public and training

programs for tribal members and employees and by consulting and cooperating with other governmental agencies

Here are some concerns Lummi has regarding the PDEIS:

1. *Alternative 1&2*
   - *Increased delivery of sediment to streams will impact our ceremonial sites.*
   - *Roads and Landing Locations would have adverse impacts to cultural resources.*
   - *Riparian Management Zones (RMZ) along our ceremonial areas doesn't protect our concerns. (See matrix section for recommendations).*
   - *Allow some silvicultural thinning and tree species conversions within the RMZ.*
   - *Provide the most acreage available for the harvesting of special forest products.*
   - *Other cultural sites that are not recorded will be at risk.*
   - *Consult with Lummi when RMAP is being proposed to avoid impacts for cultural areas.*
   - *Consult with Lummi when chemical application applies.*

2. *Alternative 3&4*
   - *Lummi Nation will develop a cultural resources management plan what will consisted of state laws and tribal title 40 code and tribal resolutions.*

Lummi Nation and DNR should have a discussion regarding the MOU OR MOA regarding tribal access for gathering and hunting under Section 5 of the Point Elliott Treaty on open and unclaimed lands.

There will be additional comments and recommendation submissions during this process. Thank-You "Tom Edwards"

LC2

RICHARD R. HORNER, Ph.D.

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November 13, 2002

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NOV 14 2002

Mr. William J. Wallace, Regional Manager
Washington State Department of Natural Resources
Northwest Region
919 North Township Street
Sedro-Wooley, WA 98284-9384

Dear Mr. Wallace:

At the request of the Northwest Ecosystem Alliance I reviewed the Preliminary Draft Environmental Impact Statement ("PDEIS") for the Lake Whatcom Landscape Plan ("the Plan". My review concentrates on the plan elements pertinent to my background and experience, which include water resources (wetlands, streams, and the lake), water quality and quantity, sediment-generating processes, and prevention or minimization of soil loss. After summarizing my background and qualifications in these areas, this letter presents my assessment of the PDEIS.

PROFESSIONAL BACKGROUND AND QUALIFICATIONS

I have 36 years of professional experience, 32 teaching at the college and university level. For the last 25 years I have specialized in research, teaching, and consulting in the area of storm water runoff and surface water management. I received a Ph.D. in Civil and Environmental Engineering from the University of Washington in 1978, following two Mechanical Engineering degrees from the University of Pennsylvania. Although my degrees are all in engineering, I have had substantial course work and practical experience in aquatic biology and chemistry. For 12 years beginning in 1981 I was a full-time research professor in the University of Washington's Department of Civil and Environmental Engineering. I now serve half time in that position and have adjunct appointments in two additional departments (Landscape Architecture and the College of Forest Resources' Center for Urban Horticulture). While my research and teaching continue at a somewhat reduced level, I spend the remainder of my time in private consulting through a sole proprietorship. My full credentials are available upon request.

My research, teaching, and consulting embrace all aspects of stormwater management, including determination of pollutant sources; their transport and fate in the environment; physical, chemical, and ecological impacts; and solutions to these problems through better structural and non-structural management practices. A substantial area within the stormwater management field involving all of these considerations is the understanding of aquatic resource problems caused by runoff from sites of soil disturbance, like logging roads and other construction projects and the timber extraction sites themselves, and how best to avoid or minimize these problems.

I have conducted numerous research investigations and consulting projects on these subjects. Serving as a principal or co-principal investigator on more than 40 research studies, my work has produced two books, approximately 30 papers in the peer-reviewed literature, and over 20

reviewed papers in conference proceedings. I have also authored or co-authored more than 75 scientific or technical reports. In addition to graduate and undergraduate teaching, I have taught many continuing education short courses to professionals in practice. My consulting clients include federal, state, and local government agencies; citizens' environmental groups; and private firms that work for these entities, primarily in Washington, California, British Columbia, and Oregon but in some instances elsewhere in the nation.

I have been the principal investigator on two extended research projects relevant to the subjects of this letter. I led an interdisciplinary team for 11 years in studying the effects of human activities on freshwater wetlands of the Puget Sound lowlands. This work led to a comprehensive set of management guidelines to reduce negative effects and a published book detailing the study and its results. The second effort is in its ninth year and involves an analogous investigation of human effects on Puget Sound's salmon spawning and rearing streams. These two research programs have had broad sponsorship, including the U.S. Environmental Protection Agency, the Washington Department of Ecology, and a number of local governments.

I have been active in the area of construction site stormwater management for approximately 17 years. During that time I have: (1) performed research on the performance of certain best management practices ("BMPs") intended to prevent soil erosion or interdict sediment transport, (2) functioned as an independent mediator on a sensitive road construction project, (3) served on a technical advisory committee for a very large research project of this type, (4) taught numerous courses on the subject, and (5) inspected many construction sites myself. My research pertained to the effectiveness of soil-covering mulches and blankets in preventing erosion and of silt fences and sedimentation ponds in stopping the transport of sediments entrained in runoff beyond the construction site. As a mediator, my responsibility was to reconcile and make judgments and recommendations based on the information coming from the contractor, the sponsoring city road agency, the city's environmental inspectors, independent consultants, and my own observations. On the advisory committee I had an oversight role on behalf of the plaintiffs for a federal court-ordered study sponsored by the California Department of Transportation as defendant. This study measured the effectiveness of 16 mulches and blankets and certain soil preparation techniques. I have taught continuing education courses on construction site pollution control, ranging from a half day to six days in length, more than 30 times to consultants, regulators, and contractors.

I have substantial familiarity and experience with Whatcom County and Lake Whatcom, the physiography and biology of the environment in the vicinity, and the status of stormwater management in the area. In 1993 I served as a mediator on a proposed lakeshore development moratorium among county, water district, and local community representatives. Over the years I have reviewed a number of documents and proposals relating to management of the area's water resources, most of which directly concerned Lake Whatcom. I presented related testimony to hearings boards on two occasions.

GENERAL ASSESSMENT OF THE PDEIS

It is my opinion that, in its present form, Alternative 1, the "no-action" option, is inconsistent with state law and must be modified to bring it into conformance with the prevailing statute in the next issue of the Plan completed under the EIS process. Moreover, the alternative and many elements within it are far out of step with key objectives stated for the Lake Whatcom Landscape on pages 25 and 26 of the PDEIS. In addition, the analysis performed on the alternative ignored critical circumstances existing in the watershed and, consequently, produced an overly optimistic assessment of its potential impacts. The specification and analysis of this and any other alternative considered must adhere to the objectives, adopted after deliberation by the legislatively constituted Landscape Planning Committee, and must properly take into account all governing conditions in reaching conclusions. While Alternative 2 incorporates the minimum provisions to comply fully with all legal requirements, it still does not represent a thorough application of the objectives. The unique status of a drinking water reservoir warrants strict attention to these objectives in the development, assessment, and eventual adoption of an alternative. The remainder of my letter gives my specific comments on the PDEIS and, in the course of doing so, elaborates on these opinions.

SPECIFIC COMMENTS

1. State legislation specifying the Plan states, "On unstable slopes, new road construction shall be prohibited and old road reconstruction shall be limited." However, Alternative 1 proposes almost 3 miles of new roads in such areas. For reconstruction in unstable or potentially unstable locations, evaluation by a "DNR specialist" would determine the course of action. The independence of the DNR's own employee is doubtful in making these sensitive determinations. The PDEIS thus gives no sense of how and to what degree, or even if, the department would "limit" old road reconstruction on unstable slopes. The law further mandates, "Establishing riparian management zones along all [emphasis added] streams ...," but the alternative omits this protection for Type 5 streams.

2. The first 8 objectives for the Lake Whatcom Landscape on pages 25 and 26 of the PDEIS fit within the scope of this letter. The first objective is to ensure no significant risk from forest management-related mass wasting events. Objectives 2 to 6 and 8 express intentions to "maintain" (or "protect") and "restore" (or "increase") various aquatic resources or conditions supporting resources, specifically:

   Objective 2—the sediment regime within the range of natural variability;
   Objective 3—riparian and wetland habitat;
   Objective 4—the forest hydraulic regime within the range of natural variability;
   Objective 5—water quality;
   Objective 6—diversity of habitat conditions; and
   Objective 8—soil productivity and health.

Objective 7 is to retain features that support mature forest functions. As subsequent comments show, Alternative 1 pays little heed to these objectives. Many of its provisions are counter to maintenance and protection, and its two references to restoration are vague and convey no commitments (see next comment). Even the more protective Alternative 2 is no better in terms of restoration. Alternatives 3 and 4, in contrast, give the commitments missing in the first two alternatives, and the whole thrust of Alternative 5 is toward protection and restoration. The Washington State Department of Health in its November 27, 2001 letter included in the PDEIS appendices says that, "Site-specific recommendations identified by that process [the Lake Whatcom Landscape Plan advisory committee] related to enhancing water quality should also be considered." I would go farther to say that the excellent objectives set by the committee should be an absolute foundation for guiding the EIS process and devising the management strategy for the watershed's forests.

3. The only provisions of Alternative 1 that could be considered to be restorative are, "Mitigation work on orphaned roads ... where a clear risk to public safety of potential for resource damage exists ..." (under Objective 2) and a strategy to, "Identify, prioritize, and replace fish-blocking culverts ..." (under Objective 6). However, neither plan comes with a commitment to a specific level or timing of action, according to which a certain amount of restoration would occur. The first provision appears to address each instance individually and takes no account of the cumulative effects of past poor practices. Blocking culvert replacement would be carried out only, "... during planned management activities or during implementation of the Road Maintenance & Abandonment Plan." There is no commitment to replace all blocking structures expeditiously, as there should be to achieve true fish passage restoration. Alternative 2 adds no restoration plans, whereas Alternatives 3 and 4 give important commitments to orphaned road mitigation and blocking culvert replacement within either 3 or 2 years, respectively, of the Plan's adoption.

4. DNR trust lands constitute 48 percent of Lake Whatcom's watershed and produce 35 percent of the lake's inflow, 96 percent of that quantity as surface runoff. This large presence gives the department the greatest controlling influence on the ecosystem and drinking water quality of any jurisdiction, a position demanding its responsibility in ensuring no further degradation originating in its zone. Since deterioration has occurred and is well documented, DNR is further obligated to perform restoration projects to reverse degradation trends. It has always been exceptionally ironic to me that, while much of even this rich nation subsists with relatively poor quality water sources requiring massive and costly treatment to reach minimal potable quality, the Whatcom County community has what until recently was a high quality source, which it has allowed to degrade for the short-term gains produced by allowing more and more intrusions into the watershed.

5. In the face of DNR's key role in the watershed and its hydrology and the recent history of water quality and ecological losses, Alternative 1 would allow 71.5 percent (11200 of 15657 acres) of the trust lands definitely to be open to timber harvesting, while up to an additional 22.8 percent (3577 of 15657 acres) in unstable areas could be logged, for a total of more than 94 percent of DNR's property as an economic zone. Clear cutting (euphemistically, "regeneration harvesting") would be the rule, accounting for 60.5 percent of the logging (89

of 147 acres harvested annually). With its 48 percent ownership of the watershed, that means that as much as 45 percent of the entire lake catchment could eventually be mostly stripped of forest cover, more than 27 percent of it clear cut. The PDEIS does not report how much of the DNR land has been logged up to the present, a point at which Lake Whatcom has already suffered considerably; but the amount surely would be dwarfed by what could be cut in the future. The document takes pains to make the point in several places that impacts would not be the same as in the past with more environmentally benign practices in the future. However, even if improved procedures decrease pollutant yields and other forms of environmental harm, greater presence is very likely to undo much or all of the benefits and lead to undiminished, or even increased, burdens on the aquatic resources.

6. The PDEIS notes that, under conditions characteristic of the area, substantial overland flow occurs only when the forest duff is removed, as it would be in road building and highly disruptive logging operations. As noted below, the increased surface runoff to the streams and lakes would carry with it eroded sediments and the nutrients they contain. Alternative 1 does not outline sufficient improvements in practices to counteract the proposed great expansion of its economic activities.

7. Alternative 1 is predicated on the construction of 61 miles of new logging roads (2.7 miles in unstable or potentially unstable areas), adding to the 44 miles now active (a 239 percent increase) and the 42 miles of orphaned roads (representing a 170 percent increase in total road disturbance over the present state). Grizell, in his 2001 report included in the PDEIS appendices, stated that almost all forest-related surface erosion is associated with forest roads. While better road building and maintenance practices might stem some of the erosion that occurred in the past, it is most improbable that methods can be improved enough to prevent a substantial net increase associated with an approximate doubling of the road presence.

8. Grizell additionally noted that orphaned forest roads are the primary trigger of mass wasting episodes on timber harvesting lands. Thus, DNR should institute a strong program to mitigate these sources quickly, instead of taking the non-committal approach of Alternatives 1 and 2, which abrogates its charge under Objective 1. Its obligation to do so is heightened in the context of its plans to expand logging and the road system so much, in that mitigation of the orphaned road sources of sediment contribution to the lake could compensate, at least in part, for the increases that will follow its expansion. Mass wasting is estimated to account for sediment yield 2.3 times the background amount, a far greater and hence more crucial anthropogenic source to bring under control than surface erosion.

9. The preceding comments have dwelled on the proposed extension of disturbance, especially in Alternative 1, and absence of restoration commitments in the first two alternatives. This and subsequent comments are concerned with environmental factors that make these faults in the alternatives of special concern. Several physiographic features of the area are highly conducive to relatively large amounts of sediment and related pollutant generation associated with disturbance.

10. First, the DNR lands are very wet, with an annual average of up to 80 inches of precipitation, which is potential surface runoff when tree interception, forest duff storage, infiltration, and evapotranspiration opportunities are gone. Furthermore, a large share of the trust lands lie in the "rain-on-snow" zone (approximately 1600 to 2600 ft in elevation). This zone can receive either snow or rain, depending on temperature, and is prone to very large runoff volumes and peak flow rates caused by a lot of rain falling on accumulated snow. Grizell attributed the greatest potential for hydrologic effects to this condition.

11. Secondly, the area's soils are relatively thin and composed of cohesionless gravels, sands, and fines. Such soils produce a rapid surface runoff response to precipitation without duff and the other features and mechanisms of a Pacific Northwest forest that largely attenuate runoff production. When exposed to precipitation and runoff, these soils are highly erosive. Once in transport, the finer fractions settle reluctantly. All of these factors make substantially increased sediment transport to the lake likely with more roads and timber harvest.

12. Some 50 streams feed into Lake Whatcom, the majority flowing from the DNR lands via steep ravine courses. High velocity flow on steep gradients without flood plains produces great shear stresses that erode the beds and banks, adding to the sediment load and offering no opportunity for settling and sediment storage. Far worse, most of the mass wasting occurs in these channels.

13. Grizell acknowledged the relatively low large woody material presence in the Lake Whatcom feeder streams, generally a consequence of past debris torrents that swept logs away. The attendant destruction of the riparian zones, along with past logging up to streams, provides a poor source of new wood. This feature also inhibits sediment settling and storage. Overall, then, meteorology, plus erosive soil characteristics and mass wasting vulnerability, plus efficient sediment transport add up to a high sediment input to Lake Whatcom when its watershed is disturbed.

14. The water quality issue most threatening to drinking water quality from the Lake Whatcom source is increased phosphorus loading, which stimulates algal growth and sets in motion the whole damaging process of eutrophication. Larger algal production not only means more plankton in the water, but generally also leads to a change in forms from predominantly diatoms at low enrichment, to filamentous green algae, and then to blue-green types at the highest nutrient concentrations. This succession has many negative ecological and aesthetic effects, but from the drinking water standpoint, it can mean a greater filtering requirement to remove suspended matter, treatments to adjust unpleasant tastes and odors created by algae, and, most worrisome, health-threatening organochlorine chemical production when disinfecting chlorine contacts organic compounds in algal cells. Some of these by-products are recognized carcinogens, and others may be.

15. Large algal biomass dying and sinking to the bottom of the lake decreases dissolved oxygen as bacteria use it up in the decay process. A fully or nearly anaerobic state permits chemical reactions that release into soluble forms of both phosphorus and mercury that had been

sequestered with the lake's sediments. Phosphorus release accelerates eutrophication. Mercury is a virulent toxin to all life and thus another concern in drinking water. The situation described is well known to exist in Basin 1 of Lake Whatcom, from which drinking water is drawn. Phosphorus and mercury are two of the four water pollutants (along with PCBs and bacteria) identified by the Washington Department of Ecology as leading matters of concern in the lake.

16. Phosphorus is a constituent of soil and vegetative tissue. It enters water when runoff erodes soil and when both soil and vegetation enter water through mass wasting. These additions greatly raise phosphorus concentrations. The PDEIS acknowledges, for example, that Smith Creek experienced an approximate ten-fold increase following a mass-wasting event. When it is considered that the flow would also have been much elevated, and that loading equals concentration times flow volume, the total phosphorus mass entering the lake must have been orders of magnitude above background levels during an equivalent period. In fact, 43 percent of the entire sediment loading expected from forestry activities over 90 years, and presumably a similar amount of phosphorus export, was estimated to be from mass wasting during one event in January 1983.

17. The PDEIS, often spoken through Grizell's report, attempts to make several points establishing that, in its view, all of the issues just recounted amount to little with respect to drinking water and ecological concerns in Lake Whatcom, opining that: (1) large inputs occur rarely, for example only during an 80- to 100-year frequency event like that in January 1983; (2) this pollution of the lake and other episodes in the past were functions of poor practices and will not recur, at least at such magnitude, with better operations; (3) these additions are remote from the drinking water intakes, into the voluminous Basin 3, isolated from the remainder of the lake by a sill; (4) phosphorus export mainly occurs in the winter, when algae are growing little; and (5) sediment phosphorus is already so abundant that new additions will not increase releases during low oxygen conditions. These arguments are speculations that are disputable through other speculations or refuted by logic. Actually, with the high stakes existing with this resource, the proponent should measure and thoroughly analyze these points instead of speculate.

18. Relative to the point about rarity, the event in question was responsible for sediment and related pollutant loading that would have occurred naturally only over decades (43 percent of 90 years contribution would take about 40 years in an undisturbed watershed). Furthermore, the mass wasting producing the sediment loading was triggered mostly by orphaned roads, which will not necessarily be remeditated soon, or ever, under Alternatives 1 or 2. Moreover, something like the January 1983 event, although probably smaller, happened less than 8 years later, in November 1990. It surely again delivered to the lake a quantity of sediments that would have only entered over years at a natural rate, if the triggering abandoned roads were not there or were restored to forest. This period of time, in the 1980s and early 1990s, on the whole had less than average precipitation in most years, and hence may not even represent a worst case.

19. Regarding the second point enumerated in comment 17, I have already argued above that the mitigating effects of better future practices may very well be lost with many more miles of roads and areas disturbed by logging. The only way that the share of deterioration from forest exploitation can be reversed is through some combination of restoration of past damage, limitation on new disturbance, and implementation of substantially improved practices to mitigate what new disturbance does occur. This philosophy is embedded in the objectives but was not applied in developing Alternatives 1 and 2. There was no analysis of what is necessary to stop degradation and what strategies of restoration, limitation, and better practices can contribute to this end. Subsequent EIS work should make a quantitative analysis of this type using the best information and assumptions available.

20. Concerning the third point, the PDEIS admits that the large hydraulic loading during the big 1983 and 1990 precipitation events pushed water from Basin 3 into the remainder of the lake, at a time of massive pollutant inputs. Also, Basin 3 is itself a resource, and the state has an anti-degradation policy, although a weak one little known or honored. The PDEIS envisions policies applying for generations (a term of up to 140 years appears within its provisions). Is it saying that it is fine to allow preventable contamination over all of those years until the condition of Basin 3 approximates that of Basin 1?

21. The fourth point ignores the realities of lake hydrology. In a body of water that does not exchange its contents for years, it is much more crucial what the contaminant loading is in relation to its flushing rate and morphometry than what happens in any one year.

22. The final point implying that things are already so bad that the DNR's plans for taking out much more timber could not make them worse is a unique argument in my experience. Lake trophic status is rated on degree of enrichment from oligotrophic (low enrichment), to mesotrophic (medium), to eutrophic (high), and in extreme cases to hypereutrophic. Lake Whatcom is by no means eutrophic yet, and could get much worse with carelessness. Future phosphorus additions will contribute to increased water column concentrations, supporting algal blooms in the short-term. It is inconceivable to me that all phosphorus binding sites in the sediments are consumed or isolated from contact with water column phosphorus. I strongly believe that sediment phosphorus build up will continue unless inputs decline. I further believe that phosphorus releases from sediments will grow as low oxygen conditions extend in time and space.

23. Alternatives 1 and 2 would perpetuate at least two poor practices from the past, allowing yarding of logs across streams and aerial chemical spraying. Although spraying directly on water would be prohibited, drift away from targets is highly likely. It is difficult to trust that the future will be bright with good practices when two non-essential environmentally harmful ones are retained.

24. All alternatives but 5 provide no buffer zones for wetlands smaller than 0.25 acre in area. Nowhere is it given how much of the total wetlands habitat is provided by these smallest wetlands, but it many be a considerable fraction. Small wetlands offer primary productivity, plant biodiversity, and habitat for at least the smaller consumers in the food web

(invertebrates and amphibians). Amphibians are in regional and worldwide decline, in part because of habitat disappearance, which is significantly aggravated by cumulative small individual losses. Continuing analysis must determine how much impact of this type any alternative will produce, and judge the alternatives accordingly.

25. Beyond forestry, Alternatives 1 and 2 allow potential drilling for oil and gas. Even if the probability of exploitable oil and gas reserves is low, no alternative should permit this activity in the drainage to a drinking water supply and important ecological resource.

In conclusion, further analysis and alternative development should concentrate on enhancing, as suggested in this letter and in other ways, the protections and restoration strategies built into present Alternatives 3 and 4, while retaining the restoration-oriented Alternative 5. With such a valuable natural and societal resource at stake, I advise the DNR to adopt a philosophy of first stopping and then soon reversing lake degradation originating its territory. I recommend that the department apply that philosophy initially by maximizing restoration and implementation of a full suite of state-of-the-art forest practices, and then by setting its harvest targets and road extensions within boundaries that will ensure cessation of deterioration from its operations. I would be pleased to answer any questions you may have and invite you to contact me if you wish.

Sincerely,

Richard R. Horner

Richard R. Horner, Ph.D.

LC3

11/27/02

Dear DNR,

I attended the public meeting held 10/10/02 in Bellingham for the PDEIS for Lake Whatcom Landscape Plan. While this is my first comment, and I now find I don't have the documents to refer to in expressing my preferences, I hope this will count. As a 20-year resident of the watershed on my own forested 20 acres on Academy Rd, I want to support whichever Alternative it was that called for the very least roading and cutting, even if it doesn't result in the most revenue for the State Trusts. I believe that was Alt. E, correct?

I believe no forest system can be managed sustainably over the long term that allows any harvesting and roading. This watershed is particularly sensitive, therefore, the DNR will have to find another place to finance the School Trust with, or the schools another source of revenue. I have resisted profiting from the cutting of my old 2nd growth forest, and ask the DNR to do the same. I'd like more sun where I live too, but feel it'd be immoral to cut any trees, and so I have not; I live in the deep forest and appreciate it as such. I would like my gov't to respect the natural landcover as well whatever the cost politically financially. End the exploitation of the trees & protect their benefits. We can do it. There are substitutes & the state gov't should take the lead in finding them.

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ASSET MANAGEMENT
& PROTECTION DIVISION

Thank you,

Keith Anderson
1915 Academy Rd.
B'ham 98226

LC4

Sudden Valley

COPY

October 24, 2002

William Wallace
Northwest Region Manager
SEPA Center
Washington State Department of Natural Resources
1111 Washington Street, S.E.
MS: 47015
Olympia, WA 98504-7015

Subject: Sudden Valley Community Comments Regarding Lake Whatcom PDEIS

Dear Mr. Wallace:

Thank you for this opportunity to comment on the Lake Whatcom PDEIS. We understand and appreciate the fiduciary responsibility of the DNR to the people of Washington State. We believe that this responsibility can be balanced between pure economic gain and the health and welfare of the people within the Lake Whatcom watershed.

Lake Whatcom is the sole source of drinking water for more than 85,000 people. Sudden Valley draws its water directly from the lake, with a water treatment plan on our community property. Much of our community's property lies adjacent to DNR managed forest lands. As such, any decision DNR makes will affect us directly. Therefore, we wish to formally request DNR to consider Alternative 4.

The Lake Whatcom Bill passed in 2000 by legislature recognized the importance of this lake for clean drinking water and public safety. The key to ensuring a safe and abundant drinking water supply is to protect streams, unstable slopes and wetlands from excessive logging and road construction. Alternative 4 provides guidelines for all of these areas. It calls for broad buffers at least 200 feet wide where no trees are cut. Outside these buffers, where logging is appropriate, employing 200 year or more rotations, retaining a 70% canopy closure, and prohibiting road construction and chemical application will ensure high water quality in our drinking water supply for years to come.

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ASSET MANAGEMENT
& PROTECTION DIVISION

2145 LAKE WHATCOM BOULEVARD / BELLINGHAM, WA 98229 / (360) 734-6430

The PDEIS executive summary suggests that Alternatives 3 and 4 dedicate about 90% of the trusts lands' productive capacity to ecological and social benefits. In considering the population makeup of the Lake Whatcom watershed we believe the benefits resulting from following guidelines of Alternative 4 more than offset the increase in timber harvest obtained from alternatives 1and 2.

On behalf of the 5,000 residents of Sudden Valley, we therefore urge you and the Lake Whatcom Landscape Committee to select this alternative for further study, as we believe it provides the strongest protection both for our drinking water and from peak flows and possible mud and debris damage.

Sincerely,

Jon Wolfe, President
Sudden Valley Community Association
Board of Directors

CC: Pete Kremen, Whatcom County Executive
Whatcom County Council
Mayor Mark Asmundson
Senator Georgia Gardner
Representative Kelli Linville
Representative Dave Quall
Representative Jeff Morris
Linda Marrom

LC5

Report of the Lake Whatcom Advisory Committee to the Commissioner of Public Lands

Executive Summary

Concerns about the potential impacts to drinking water quality from proposed timber harvest practices by DNR resulted in the establishment of the Lake Whatcom Watershed DNR Advisory Committee (LWAC) on May 10, 1999 under SSSB 5536. The LWAC had representatives from the City of Bellingham, Whatcom County, the Whatcom County Water District #10, the Department of Ecology, the Department of Fish and Wildlife, the Department of Health and three general citizen members. The LWAC began meeting in September 1999 and during the course of several all-day meetings received briefings from a variety of technical experts. Following the briefings and committee discussion, the LWAC prepared a report to DNR. The findings of the LWAC include:

- Road deficiencies, particularly the Lookout Mountain Road, need to be addressed as soon as possible, independent of timber harvest. In part, increasing the percentage of the gross revenue retained by DNR for management can finance this.

- All streams, including Type 5 streams, need to have a no-harvest buffer.

- An Inter-jurisdictional committee should be established to advise DNR on proposed timber harvest practices in the Lake Whatcom Watershed. It should include state agency and tribal representatives plus representatives of Whatcom County, City of Bellingham and two general citizen members.

The Committee paid particular attention to the trust mandate, fiduciary responsibilities, and the long-term need to benefit all generations. In this regard, the DNR Habitat Conservation Plan (HCP) is a forward thinking interpretation of the mandate. While most of the Committee s report provides technical recommendations to strengthen the HCP and reduce direct water quality impacts, the group discussed the broader aspects of current forest management, potential effects on water quality, and economics. Two fundamental questions emerged: how can the current needs of the trusts be met or exceeded through diversification of revenue sources from trust lands, and how can, hydrologic integrity and biodiversity be protected in the long-term.

In the spirit of a pilot project, the Committee recommends that DNR expand the scope of its Landscape Planning to explore how it could generate revenue in Lake Whatcom watershed while increasing harvest rotation age. DNR should assess the costs and values of extending rotations to between 120 and 200 years, including the long-term benefits associated with mature hydrology and soil health. DNR should explore sustainable forestry (green) certification, alternative and nontimber forest products, and market possibilities for wood products derived from older forests. At a minimum DNR should investigate opportunities to add value to standing timber by contracting for services and creating wood products as opposed to selling stumpage. We understand that DNR is already considering some of these options for the trusts.

The Lake Whatcom watershed, with its involved local community, is an excellent place to explore the opportunities that could help define the evolution of commercial forestry in municipal watersheds.

Report of the Lake Whatcom Advisory Committee to the Commissioner of Public Lands

Background:

Concerns about the potential impacts to drinking water quality from proposed timber harvest practices resulted in the establishment of the Lake Whatcom DNR Advisory Committee (LWAC) on May 10, 1999 under SSSB 5536. Lake Whatcom is the source of drinking water for the City of Bellingham, for customers of Whatcom County Water District #10, and for approximately 250 households that draw water directly from the lake. Just under 50% of the Lake Whatcom watershed is owned by the Department of Natural Resources (DNR) and managed for timber production.

The Advisory committee had a representative from the City of Bellingham, Whatcom County, the Whatcom County Water District #10, the Department of Ecology, the Department of Fish and Wildlife, the Department of Health and three general citizen members.

The Committee was asked to:

1) examine issues affecting water quality in Lake Whatcom,

2) identify which factors are related to timber and associated practices on state trust lands,

3) identify standards above those required under RCW 90.48.420 and 90.48.425 that may be desirable to the community,

4) identify additional management actions that could be taken on state trust lands that would contribute to higher water quality standards, and

5) identify methods for compensating the trust if DNR is requested to alter management actions to produce water quality standards that exceed those required in RCW Chapter 90.48.

The Lake Whatcom DNR Advisory Committee began meeting in September 1999 and during the course of several all-day meetings received briefings from a variety of technical experts. Topics covered included:

details on DNR s HCP and how it is being implemented currently,
fish stock status in the Lake Whatcom watershed,
water quality,
road maintenance/abandonment, and
how timber harvest is being conducted, and forests being protected/restored, in other municipal watersheds in Washington State.

Findings:

- Protecting Type 5 stream riparian zones is key to protecting healthy stream networks[1].
- Some existing Forest roads (active and orphaned) in the watershed pose a serious threat to water quality, stream habitat and public safety concerns.
- A lower acceptable level of risk should be applied to timber harvest practices in watersheds providing municipal drinking water supplies relative to other watersheds in Washington.
- The first step in providing safe drinking water is to protect, maintain, and improve the quality of the source water. Subsequent steps can include filtration, treatment and disinfection of the treated water through the distribution system.
- Forested lands provide the best land cover for long term protection of water quality in Lake Whatcom. Commercial forestry can occur within the watershed and still protect Lake Whatcom water quality.
- Given the importance of municipal water supplies, and the State Department of Health emphasis on source protection, actions that encourage forests as a land use and minimize risks associated with forest practices are important.
- In taking steps to minimize impacts on water quality, care should be given to ensure that forest management remains a feasible land use. Actions that may result in pressures to convert forestlands to other more intensive land uses should be avoided.
- DNR is a valued partner in protecting and enhancing water quality in the Lake Whatcom watershed. Increasing state ownership of forestland in the Lake Whatcom watershed would benefit the long-term, sustainable management of the watershed.
- Locally adopted goals and policies promote low impact forest practices over residential development. The goals further recommend that zoning and development incentives be pursued to retain lands in long-term forestry, and that a forest management plan be developed that minimizes cumulative impacts on drinking water.
- A legacy of past forest practices such as logging in sensitive areas and poorly constructed roads has contributed to degraded water quality in many of the waterbodies in Washington, although it is not possible to determine the extent to water quality impacts are caused by forest practices relative to other land uses/factors.

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[1] Summary of recommendations found in (1) *Management Recommendations for Washington's Priority Habitats, Riparian*, pages 84-91, December 1997, and (2) *Effectiveness of Forest Road and Timber Harvest Best Management Practices with Respect to Sediment-Related Water Quality Impacts*, Department of Ecology & Timber, Fish & Wildlife Publication No. 99-317, page ix, May, 1999.

- The lack of site specific monitoring data results in an inability to determine compliance with state water quality standards.
- Recent changes in forest practices including legislative and internal policy direction, have reduced the likelihood of future adverse effects to water quality through changes to previously practices,
- However, a variety of factors make it difficult to determine if current practices alone will adequately meet water quality standards and minimize risk to water quality. This is because the current practices have either not been implemented or have not been in place very long and there are few results of evaluation monitoring available.

- The use of pesticides and fertilizers by DNR was not reviewed by the LWAC due to a lack of time.

- Large woody debris is key to healthy streams.

- Other land practices (urban development) within the watershed should be equally protective of water quality as forest practices.

List of Recommendations

SPECIFIC STRATEGIES BASED ON EXISTING PROCEDURES

Roads

- Lookout Mountain Road must be brought into compliance with forest practice standards as soon as possible, independent of timber harvest plans.

- DNR should develop a comprehensive road construction, maintenance and abandonment plan, to include all existing and orphaned roads.

- By the year 2006, have all the roads, including orphan roads, within the LWW either decommissioned or brought up to forest practice standards.

- No new road construction should occur across unstable slopes without consensus of the Interjurisdictional committee proposed in Oversight/Management section.

- Allow flexibility in road construction standards to minimize water quality impacts, e.g., decreased width & curve radius; possible vehicle restriction.

Management of Riparian Zones and Unstable Slopes

- Type 5 streams should have a designated riparian management zone with a minimum horizontal width (each side) of 10 meters. Buffers should be windfirm.
- No timber harvests should occur in riparian management zones[2]. Trees cut for yarding corridors through riparian zones should be retained as down wood.
- Should DNR identify the need to build roads, conduct yarding activities, stream rehabilitation or other potential major ground disturbing activities within riparian management zones, consultation should occur with the Inter-jurisdictional committee proposed in Oversight/ Management recommendation.
- Edges of unstable slopes should be reviewed. DNR should leave windthrow buffers on unstable slopes.

Oversight / Management

- Develop a Sustainable Yield Model that is specific to the Lake Whatcom watershed.
- A DNR hosted Inter-jurisdictional committee should be established to address LWW site-specific implementation issues. The inter-jurisdictional committee should consist of appropriate state agency and tribal representatives plus invited technical representatives from Whatcom County; City of Bellingham; and two members of the general public. Recommendations of this group shall be to DNR as the landowner, and will be consensus-based.
- Concurrently DNR should communicate with the Lake Whatcom Management Committee for overall programmatic coordination and education.
- DNR should continue to minimize or eliminate use of pesticides and fertilizers in the Lake Whatcom watershed.

Revenue/Funding

- Increasing the percentage of the gross revenue retained by DNR for management can finance much of the remedial actions necessary to correct legacies of past timber harvest practices statewide.
- Establish at the earliest possible time a revolving fund with sources not tied to timber harvests to address remedial actions correcting legacies of past timber harvest practices statewide. Repayment to the revolving fund would be apportioned from all trusts as revenue is generated.

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[2] Riparian management zones should be measured from the edge of the channel migration zone.

- Expand the Jobs for the Environment criteria to allow resources to be allocated for restoration of watersheds that are a municipal water supply in addition to watersheds that have listed or critical anadromous stocks.

LEGISLATIVE QUESTION: ***What factors need to be consider ed to achieve water quality standards beyond those required under chapter 90.48 RCW.***

The committee is not recommending water quality standards beyond those required under chapter 90.48 RCW.

At the core of 90.48 RCW is RCW 90.48.080 **Discharge of polluting matter in waters prohibited.** The section appears to set a zero tolerance standard. However RCW 90.48.420 **Water quality standards affected by forest practices - Department of ecology solely responsible for water quality standards - Forest practices regulations - Promulgation - Examination - Enforcement procedures** makes it clear that the intent of the legislature is to allow reasonable transient and short-term effects resulting from forest practices. The intent is to allow degradation under subsection WAC 173-20 1A-070 (4). There are three provisions that must be met for the degradation to be allowed. Provision (a) is a public process demonstrating overriding interest. Provision (b) requires the use of all known, available, and reasonable best management practices for nonpoint sources. Provision (c) prevents degradation that would interfere with existing beneficial uses.

As an example of how to determine all known, available, and reasonable best management practices, consider the committee s recommendations regarding buffers on type 5 streams. Stream side buffers are known and available best management practices that have been determined to be reasonable on Type 1, 2 and 3 waters state wide. As a result of the adoption of the DNR HCP, buffers on Type 4 streams are also deemed reasonable. The May 1999 publication Effectiveness of Forest Road and Timber Harvest Best Management Practices with Respect to Sediment-Related Water Quality Impacts published by the Cooperative Monitoring Effectiveness Research group (CMER part of the Forest Practice Board s Timber Fish & Wildlife process) recommends buffers on all streams. Because of the lower level of acceptable risk we conclude that no cut buffers on type 5 streams are now reasonable.